# Preliminary Estimates of Gross National Product, 1929-41

By Milton Gilbert and R. B. Bangs 1

In several recent articles,2 the Bureau of Foreign and Domestic Commerce has issued preliminary estimates of various components of the gross national product which were thought to be of value in the analysis of pressing economic problems created by the war. Since then many requests have been received from both public and private agencies for more complete information concerning these estimates. The requests indicate a need for estimates covering a longer span of vears and for a series of tables showing the interrelations of the various segments of gross national product or expenditure. Accordingly, preliminary estimates of these aggregates, distributed in ways particularly relevant for problems of war production and war finance, are being presented here. This presentation, furthermore, provides an opportunity for incorporating the results of additional work which have since become available, leading to conceptual and statistical improvement of the data previously issued.

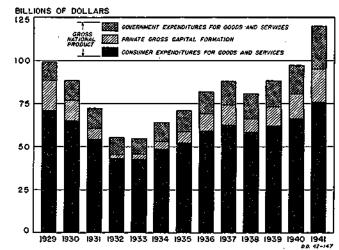
Because of the misuse sometimes made of estimates of this character, it must be emphasized that the data are being offered as an analytical tool, rather than as precise measurements of every component series. There is every reason to believe that the over-all picture of the economy is represented in its true perspective. Consequently, the vital policy decisions required from day to day in the present emergency can better be made with the aid of this statistical framework than with the cruder relationships that otherwise would be used either explicitly or implicitly. However, several of the component series are still some distance from their finished form. The work of refinement is going forward so that series obtained by direct measurement may be substituted for those now obtained as residuals and so that certain well-known limitations of series now directly measured may be removed.3

### The Two Methods of Measuring National Income

The national income is the most familiar comprehensive measure of the output of the economic system.

As is well known, the national income measures the net value of goods and services produced during a given period. In practice this net value of product is now obtained by adding together all the incomes paid or accruing to factors of production during the given period, i. e., by aggregating all wages, salaries, dividends, net rents, net interest, entrepreneurial income, and retained earnings of business corporations.

Figure 5.—Gross National Product by Use



Source: U. S. Department of Commerce.

A second method of measuring national income, the so-called "final products approach," leads directly to estimates of national output by summing the values of all finished commodities and services produced during a given period. These finished commodities include both the products sold to consumers and those retained by business enterprises for use in further production. Thus the flow of goods and services to consumers plus the net flow to capital purposes (net capital formation) equals the net national product.

Complete estimates of national income by the final products method,<sup>4</sup> designed to supplement the data on national income by distributive shares and industrial origin which have been available for some years, are in process of development. The final products method yields two national product totals: (a) a gross national product <sup>5</sup> consisting of (1) the flow of consumers' goods and services through private enterprises, (2) gross

<sup>&</sup>lt;sup>1</sup> The writers would like to acknowledge the contributions of the following members of the National Income Unit to this work: William Shaw, Wendell Hance, Burton Klein, and Orris Herfindahl. Particular mention is due a former member of the staff, John Lindeman, who made a major contribution during the earlier stages of the work.

<sup>2</sup> See Survey of Current Business, March and April 1942.

<sup>3</sup> So far as the three significant residuals in the tables are concerned, savings of individuals, consumer expenditures for nondurable goods and services, and corporate savings, the first two have been checked against whatever independent direct measures are available and found to be reasonably consistent. The third is known to be significantly understated because of the present underestimation of corporate net income, due largely to the fact that the latter estimate is based upon tabulations of unaudited tax returns.

<sup>4</sup> A report on the first part of this work, "The Gross Flow of Finished Commodities and New Construction, 1929-1941," appeared in the Survey of Current Business, April 1942.

<sup>5</sup> The terms, "gross national product" and "gross national expenditure" are used synonymously in this report.

capital formation by private enterprises, and (3) the product of government activities; and (b) a net national product found by subtracting an allowance for the consumption of capital equipment from the gross national product. Net national product bears a definite reconcilable relationship to net national income as estimated by the distributive shares method.

For certain purposes national income by the final products method provides more useful breakdowns than estimates by the method of distributive shares. Thus if we wish to know how the national product is being used and the manner in which this use is changing over time, final products data are essential. Similarly all questions relating to the commodity composition of the national product can be handled only in terms of the final products approach.

## The Construction of Gross National Product Estimates

Upon completion of the final products study, estimates of the gross and net national product, broken down in detail by type of commodity and service, will be issued. These estimates will not, in their entirety, be completed for some months. Pending completion of this study, however, it has been feasible to prepare approximate aggregates of gross national product, together with certain breakdowns by type and use of product, using the regular national income series and such parts of the final products material as have been completed.

The concept of gross national product used here is designed to count all final products and services produced by the economy at the prices these products command in the market. So far as the output of private enterprise is concerned, the task is one of estimating the consolidated gross income from operations of all business firms. This total for all business firms must of necessity equal the market value of goods produced and sold during a given period plus the current value of the change in inventories. In the case of government, the total of payments to factors of production is included as the measure of the value of government output.<sup>6</sup>

The relationship between the national income, as estimated by the distributive shares method, and the gross national product, with private enterprise output valued at market prices and government output valued at cost, is shown in table 1. As may readily be seen, the sum of the component series added to the national income in order to obtain gross national product is in most years relatively constant. Thus, the year-to-year movements of the gross total are not normally much different from the changes in the net national income series. But in years when the national income is

changing sharply or in years which correspond roughly to the turning points of business cycles, sufficient differences between the movements of the two series to be analytically important may be observed. In 1941, for example, while the increase in national income amounted to 17 billion dollars, the increase in gross national product was substantially larger, namely 22 billion dollars. Another significant difference between the movements of the two series occurred in 1933 when national income increased by more than 2 billion dollars while gross national product declined slightly.

Particular mention may be made of the adjustment for the revaluation of business inventories, a correction introduced in the concept of gross national product but not implicit in the present Department of Commerce estimates of national income. The prices at which business firms charge goods out of inventory to cost of sales and also the method of pricing inventories at the close of accounting periods may exercise an important effect upon the results yielded by accounting calculations of business net income. As is well known, in a period when prices are changing a business firm may by figuring inventory on an original cost basis, calculate a very different net profit or loss than its accounts would reflect had they employed, for example, a replacement cost procedure. Furthermore the method of inventory pricing followed by business firms varies from firm to firm and from industry to industry, depending on such factors as the flexibility of prices of goods carried in inventory, tax considerations, and administrative convenience.

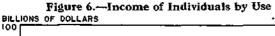
As a result the inventory figures obtained by combining the accounting records of business firms are not homogeneous and have no clear meaning. Not only do the methods of treating inventories differ, but the dollar-inventory figures obtained from accounting records are based on a broad range of prices for goods and services prevailing in the near or perhaps more distant past. To correct this difficulty and to produce meaningful aggregates of inventory changes for the entire business system it is necessary that the diverse inventory figures from accounting records be rendered as nearly consistent as possible.

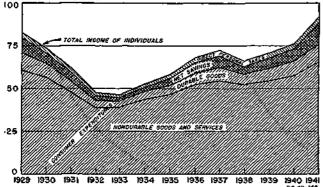
The simplest, and from some standpoints theoretically most desirable, method of obtaining this consistency is by revaluing all inventories into average prices for the current year. After inventory changes are converted into such relatively homogeneous magnitudes, the amount of revaluation may be determined as the difference between the revalued series and the original series derived from accounting records. This procedure, which has been followed in the estimates of gross national product, yields, ideally, an estimate of the current dollar value of the physical quantity change in business inventories.

<sup>&</sup>lt;sup>6</sup> Thus, the concept of gross national product used here is inclusive of government operations financed by business taxes. This is one of the important respects in which it differs from the concept made familiar by the notable work of Professor Kuznets. See Simon Kuznets, National Income and Capital Formation, National Bureau of Economic Research, 1937.

<sup>&</sup>lt;sup>7</sup> The actual results can only approximate this ideal with an unknown degree of error, since it is impossible in practice to make proper allowance for all different methods of inventory pricing practiced and since it is difficult to obtain and select the most appropriate deflating index in every case.

The revaluation of inventories thus involves, in essence, adjustment of the net income of business enterprises as calculated by prevailing accounting methods. It is, therefore, as appropriate an adjustment to national income as to gross national product. This correction may, in fact, be introduced in the national income estimates in the near future, when the reliability of the statistical procedure has been more carefully tested.





Source: U. S. Department of Commerce.

It is interesting to note that the revaluation of inventories, by removing many of the erratic fluctuations in business net income resulting from price changes, leaves a less volatile and more readily understandable series measuring the retained net earnings of business firms.

#### The Composition of the National Product

Having converted the national income figures to a series measuring the gross value of privately produced finished consumer goods and services plus the gross flow of producers' goods and the output of government, it is essential to distinguish the analytically significant components of this aggregate. Two breakdowns of the total are presented here, in addition to that illustrated in table 1. The first, which is shown in table 2, concerns the product aspect of the gross income produced and distinguishes broadly the uses made of the complex of goods and services which comprise the national output. The second breakdown, shown in table 4, is concerned with the disposition of gross income flows generated by current production. Each of these breakdowns is useful for particular purposes; together they yield a rounded picture of the commodity and financial flows which jointly determine the structure of the national product.

Table 2 shows the proportion of the gross national product flowing to government for all public purposes, the proportion utilized to maintain and improve the productive capacity of the system of private business enterprises (private gross capital formation), and the proportion flowing to ultimate consumers. When this broad breakdown is supplemented by detailed data

on the commodity and service composition of each major portion of the national product, a relatively complete cross section of the yield of the productive process will be at hand.

As yet details concerning the product composition of government purchases are not readily available. Certain details relative to the capital formation component are shown in table 2 and these may be supplemented by the detailed estimates of producers' durable goods, when these latter are properly adjusted to exclude government purchases. Similarly the consumer segment of the national product may be partially analyzed (with respect to the commodity portion only) by means of the detailed commodity flow figures, likewise adjusted to exclude government purchases.<sup>8</sup>

Turning from the goods and services yielded by productive activity to the financial flows stemming from the productive process, particular interest attaches to an analysis of the use made by individuals of the incomes they receive. Analysis of this type is illustrated by table 3 which presents summary figures indicating the manner in which the income received by individuals is allocated as between direct taxes, savings, and purchases of consumption goods.

Special mention must be made of the possibility of error in the estimates of individuals' net savings, due to the fact that the series is a residue and that direct measures cannot be estimated with precision. However, the level of the savings series is roughly corroborated by such direct estimates of the component parts of personal savings as are available. 11

Since considerable importance attaches to a breakdown showing the channels through which individuals' savings flow back into investment, it is hoped, when the final products study is nearer completion, to present figures for net personal savings estimated by direct rather than residual methods. Such estimates should add appreciably to our knowledge of the sources of funds used for capital expenditure.

For some purposes analysis of the sources of capital funds can be facilitated more by working with gross than with net savings and also by combining the savings of individuals with those made by business enterprises. Such an aggregation of all savings (on a gross basis) is illustrated by table 4. Setting this total of all

The details of gross commodity flow were published in the Survey of Current Business, April 1942.

It should be emphasized that the estimates of personal taxes presented in table 3 include only the taxes paid by individuals explicitly from income. The so-called "indirect taxes" are, consequently, contained in the market prices of final products. The criterion separating direct from indirect taxes is based on mode of collection rather than on judgments concerning the ultimate incidence of particular types of taxation.

<sup>10</sup> The monthly estimates of disposable income, consumer expenditures, and savings which were presented in the April Survey were based on advance annual estimates for 1040 and 1941 of these components of the national product. The present more accurate annual figures differ slightly from those employed for deriving the monthly series. This discrepancy, however, affects only the level of the monthly estimates and not the month-to-month changes.

Il Particular attention has been given to checking the residual estimates of savings against the direct measurements made by the Securities Exchange Commission. When the differences in concept are eliminated, the two series are within 5 percent of one another for the 1933-41 period.

# SURVEY OF CURRENT BUSINESS

#### Table 1.-Relation of Gross National Product 1 to National Income

[Billions of dollars]

Line	Item	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941
1234567	National income Add: Total business taxes.  Depreciation and depletion charges. Income credited to other business reserves. Capital outlays charged to current expense. Less: Revaluation of business inventories. Equals: Gross national product or expenditure.	83.3 7.0 6.8 1.0 -0.5 99.4	68.9 6.8 6.9 1.1 -3.7 88.2	54. 5 6. 2 6. 7 1. 3 . 6 -2. 8 72. 1	40.0 6.1 6.2 1.5 .4 -1.2 55.4	42.3 6.6 6.0 1.4 1.9 54.8	49.5 7.5 5.9 1.3 .5 .9	55. 7 8. 1 5. 9 1. 1 . 6 . 6 70. 8	64.9 8.8 6.2 1.3 .8 .3 81.7	71. 5 9. 0 6. 1 1. 0 . 8 . 7 87. 7	64. 2 8. 3 6. 2 5 - 5 - 7. 9 80. 6	70.8 9.6 6.4 .8 .8 .3 88.1	77. 3 11. 8 6. 5 . 9 1. 0 . 4 97. 1	94. 7 17. 6 7. 0 1. 6 1. 8 3. 2 119. 5

<sup>1</sup> Sec footnote 6.

Table 2.—Gross National Product by Use of Product

[Billions of dollars]

Line	Item	1929	1930	1931	1932	1933	1934	1935	1936	1937	8801	1939	1940	1941
1 2 3	Gross national product Less: Government purchases of goods and services Federal Government National Defense.	2,7	88. 2 11. 2 2. 4	72. 1 11. 5 2. 8	55. 4 10. 2 2. 4	54. 8 9. 1 2. 6	63.8 19.8 4.9	70.8 11.9 3.9	81.7 12.6 4.6	87. 7 13. 6 6. 1	80. 6 14. 4 6. 8	88. 1 15. 1 6. 8 1. 4	97. 1 16. 3 8. 0 2. 8	119.5 24.6 16.4 11.2
5 67 8 9 10	Other State and local governments. Equals: Goods and services available for private use Loss: Private gross capital formation Construction Producers' durable equipment. Net export of goods and services.	8. 3 88. 4 17. 6 8. 3 7. 3	8.8 77.0 12.1 5.6 6.0	8.7 60.6 6.4 3.8 4.2	7.9 45.22 1.8 4 2.2 2.4 2.2	6. 5 45. 7 3. 3 1. 3 2. 1	5, 9 53, 0 5, 3 1, 6 3, 1	8.9 58.9 6.1 4.0 2.	8.0 69.1 10.0 2.9 5.2 -1.1	7, 5 74, 1 11, 6 3, 7 6, 3	7. 6 66. 2 7. 7 3. 3 4. 5	5.4 8.3 73.0 11.0 3.7 5.4	5. 2 8. 3 80. 8 14, 6 4, 4 6. 6 1. 4	5, 2 8, 2 94, 9 19, 1 5, 2 8, 9
12 13 14 15 16	Not export of gold and silver.  Net change in business inventories.  Not change in monetary stock.  Equals: Goods and services sold to consumers.  Durable goods.  Nondurable goods and services.	1 1.6 1 70.8 9.9 60.9	2 3 64.9 8,1 56.8	.2 -2.0 .0 54.2 6.3 47.9	-2.3 -1 43.0 4.2 38.8	7 42.8 3.4 39.0	-1.3 1 1.5 47.7 4.8 42.9	-2.1 .2.3 52.2 5.7 46.5	-1.2 2.2 1.0 59.1 6.7 52.4	-1, 5 1, 1 1, 9 62, 5 7, 6 54, 9	-1.9 -1.3 2.0 58.5 6.0 52.5	-3, 2 3, 5 62, 0 7, 1 54, 9	-4. 1 1. 8 4. 5 66. 2 8. 3 57. 9	6 3.0 1.1 75.8 10.3 65.5

Table 3.—National Income by Use of Funds [Billions of dollars]

Line	Item	1920	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1911
1 2 3 4 5 6 7 8 9	National income Add: Transfer payments from government Less: Corporate savings Employment taxes Direct personal taxes Federal State and local Equals: Disposable income of individuals. Less: Consumer expenditures for goods and services Equals: Net savings of individuals.	83.3 1.2 2 3.0 1.3 1.7 79.6 70.8 8.8	68.9 -7 -3.9 2.6 1.0 1.6 70.7 64.9 5.8	54. 5 1. 9 -5. 8 . 2 2. 4 . 7 1. 7 50. 6 54. 2 5. 4	40.0 1.3 -6.4 1.9 1.5 45.6 43.0 2.6	42.3 1.4 -2.8 1.3 1.5 1.3 44.5 42.4 2.1	49. 5 1. 5 -2. 1 1. 9 .6 1. 3 51. 0 47. 7 3. 3	55.7 1.8 -1.3 -2 2.3 1.5 56.3 52.2 4.1	64. 9 2. 9 9 2. 9 1. 2 1. 7 65. 2 59. 1	71, 5 1, 7 -, 8 1, 7 3, 1 1, 4 1, 7 69, 2 62, 5 6, 7	64. 2 2. 4 -1. 5 1. 9 3. 3 1. 6 1. 7 62. 9 58. 5	70.8 2.5 -4 2.0 2.9 1.2 1.7 68.0 62.0	77.3 2.7 1.3 2.2 3.0 1.3 1.7 73.5 66.2 7,3	04.7 2.4 2.0 2.4 3.8 2.1 1.7 88.3 75.8 12.5

Table 4.--Gross National Expenditure by Use of Funds

[Billions of dollars]

Line	Item	1920	1930	1931	1932	1933	1934	1935	1936	1937	8891	1939	1940	1941
1 2	Gross national expenditure '	99. 4 10. 2	88. 2 9. 6	72. 1 8. 8	55. 4 8. 2	54. 8 8. 6	63. 8 9. 6	70.8 10.6	81. 7 12. 3	87. 7 13. 8	80. 6 13. 5	88. 1 14. 5	97. 1 ' 17. 0	319, 5 23, 8
3 4 5	Business taxes	7.0 2.4.	6.8	6. 2 1. 3	6.1 1.4	6. 6 2. 1	7.5 2.9	8.1 3.0	8. 8 3. 6	9. 0 3. 8	8.3 3.1	9. 6 3. 6	31.8 5.7	17.6 10.8
6	taxes	1. 2 1. 2 4. 6	.8 1.0 5.0	. 5 . 8 4. 9	1.0 4.7	.5 1.6 4.5	2. 2 4. 6	.9 2.1 5.1	1, 3 2, 3 5, 2	1, 4 2, 4 5, 2	1.0 2.1 5.2	1.3 2.3 6.0	2.6 3.1 6.1	6.6 4.2 6.8
8	State corporate income taxes	.2 4.4	.ĭ 4.9	.i 4.8	.i 4.6	7,1 4,4	7. ĭ 4. 5	.i 5.0	5. 0 5. 0	5,0	.2	.2	.2	.3
10 11 12	Direct Personal taxes Federal State and local	3.0	2, 6 1, 0 1, 6	2.4 .7 1.7	1.9 .4 1.5	1. 8 . 5 1. 3	1.9 .6 1.3	2.3 .8 1.5	2.9 1.2 1.7	3.1 1.4 1.7	5.0 3.3 1.6 1.7	5.8 2.9 1.2 1.7	5.9 3.0 1.3	6.5 3.8 2.1 1.7
13 14 15	Employment taxes Less: Total gross savings Corporate	19.1 19.1 7.6	1. 0 . 2 14. 4 5. 3	11.0 2.4	5. 5 .0	5, 2 1, 1	1. 3 8. 0 2. 4	9.8 3.4	.6 13.2 4.4	1.7 13.1 4.0	1,9 11.0 3,8	2.0 14.1	1.7 2.2 16.6	2. 4 22. 3
16 17	Net savings.  Depreciation and depletion	1.2 4.4	-3.9 4.5	-5.8 4.3	-6.4 3.9	-2.8 3.8	-2.1 3.7	∸1.3 3.7	-,9 3.8	8 3.8	-1, 5 3, 8	5. 5 . 4 3. 9	6.7 1.3 4.0	2.4 22.3 7.2 2.6 4.4 1.3
18 19	Other business reserves. Capital outlays charged to current expense.	.9 .7	1.0 .7	1.2 .5	1.3 .3	1.3	1, 2 , 4	1.0	1, 1 . 7	.9	.4	.7	.8 .9	1.5
20 21 22	Revaluation of inventories	11.5 8.8	3.0 9.1 5.8	2. 2 8. 0 5. 4	. 9 5. 5 2. 6	-1.5 4.1 2.1	8 5.6 3.3	-,5 6.4 4.1	7,3 8.8 6.1	6 9.1 6.7	7, 2 4, 4	7.2 8.6 6.0	3 9.9 7.3	-2.6 15.1 12.5
21 22 23 24 25	Depreciation and depletion Other business reserves Capital outlays charged to current	2.4	2.4	2.4	2.3	2.2	2. 2 . 1	2. 2 . 1	2.4	2.3 .1	2.4 .I	2. 5 . 1	2.5 .1	2, 6 . 3
26 27	expense. Revaluation of inventories. Add: Transfer payments of government. Equals: Total consumer expenditures.	70.8	.1 .7 .7 64.9	.1 .6 1.9 54.2	1.3 1.3 43.0	4 1.4 42.4	1 1 1.5 47.7	1 1.8 52.2	.1 .0 2.9 59.1	1 1.7 62.5	.1 .2 2,4 58.5	2. 5 62. 0	-,1 2,7 66,2	75.8

<sup>&</sup>lt;sup>1</sup> Same as gross national product.

savings against gross national expenditure suggests the desirability of similarly grouping all taxes, whether paid by individuals or by business firms. It should be noted that the tax total includes no overlap since only direct personal taxes have been added to total business taxes. Thus excise or sales taxes, despite the fact that they may ultimately be paid in whole or part by consumers, have been included in the total of taxes collected from business firms.

### Possible Uses of the Estimates

In recent months particular interest has centered in the calculation of impact ratios measuring the intensity of the war effort. It is believed that rough impact ratios of the sort which may be calculated from table 2 give in practice a somewhat truer perspective of the magnitude of the war effort than the impact ratios which employ net national income as a denominator. Furthermore, other comparisons such as those seeking to derive the proportion of national product consumed or the part taken by taxes are more easily carried out on the basis of gross rather than net product.

In principle, however, all these and other comparisons might equally well run in terms of the net national product or national income. To construct such comparisons, numerous adjustments not shown here to government expenditures, taxes, and capital formation would be required. These will be discussed at a later date when the progress of the work permits.

Other uses to which the present estimates may be put have already been found in connection with the formulation of fiscal policies for the coming war years and in connection with the studies of probable postwar economic problems now being undertaken by public and private agencies. The estimates should also prove useful in other capacities, both to businessmen and to private economists seeking a summary picture of the economic process as background for special studies and policies.

### Notes on Sources and Methods.

The following notes are arranged by tables and are keyed to the line numbers appearing in these tables.

#### TABLE 1

Line 1-Estimates of the Department of Commerce.

Line 2—Includes all taxes collected from business enterprises regardless of ultimate incidence. The method of estimate employed involves allocating all tax collections to the year in which the tax liability was incurred. Separate allocations were made for Federal and for State and local taxes. It was also necessary to determine the proportion of property taxes paid by business enterprises. On the basis of available evidence this was placed at 75 percent. This figure was largely derived from Studies in Current Tax Problems (Twentieth Century Fund) adjusted for taxes on rented residences.

Line 3—Basic data for this estimate were derived from Statistics of Income, raised to cover estimated depreciation charged by unincorporated enterprises. Also included are depreciation on nonprofit institutions such as churches and hospitals, and on rented residences owned by individuals. These latter two components are based on estimates of Solomon Fabricant, published in Capital Consumption and Asset of Solomon Fabricant, published in Capital Consumption and trutal Economics.

Line 4—Includes special emergency and contingency reserves plus allowances for bad debts. Based on Statistics of Income data raised to cover noncorporate enterprises. Line 5—Represents an estimated portion of the outlay for producers' durable equipment not covered by depreciation allowances. The estimate was based on the de-

tailed tabulations of Output of Manufactured Commodities prepared in the National Income Unit, and on the final estimates of expenditures for producers' durable explanate.

Line 6—This series represents the difference between inventory changes as recorded by business accounts and the physical quantity change in business inventories translated into current prices. The estimate was made in the National Income Unit, and is a hyproduct of the estimates of the net change in business inventories in current prices.

Line 7-Sum of items 1 through 5, minus item 6.

#### TABLE 2

Line I-From line 7, table 1.

Line 2—Includes all government expenditures for goods and services. Sum of lines 3 and 6. Public service enterprises are not included, except for contributions to them by government units.

Line 3—To obtain this series, Federal expenditures as reported in the Daily Treasury Statement were adjusted to eliminate all transactions not involving purchases of goods or services. These transactions include loans, purchases of existing assets such as land, capital stock transactions, veterans' pensions, etc. The figures include grants to State and local governments but refunds of taxes and duties have been eliminated.

Line 4—This series is based on the Daily Treasury Statement figures on national defense expenditures plus changes in the noncash assets and liabilities of national defense corporations other than transfers. For 1941 an adjustment of 2.3 billion dollars has been made to the Treasury series to take account of (a) offshore expenditures, (b) prepayments on contracts for war materials, and (c) purchases of existing assets.

Line 5-Line 3 minus line 4.

Line 6—Expenditures were measured by receipts plus net changes in debt. Duplication because of local shares of State-collected taxes has been eliminated. The estimates were based on Census publications for various years such as Financial Statistics of States and Cities and State Tax Collections. The publication, Tax Yields, 1940, issued by the Tax Institute was also useful.

Line 7-Line 1 minus line 2.

Line 8-Sum of lines 9 through 14.

Line 9—Includes all new private construction of factory and public utility property, residences, and other property (including nonprofit institutions and farm construction). Data are taken from the construction studies of the National Income Unit.

Line 10—Taken from estimates published in the April 1942 SURVEY OF CURRENT BUSINESS. Adjustments were made to eliminate government purchases from the published data. These adjustments were made only for 1946 and 1941; for prior years the amount of government purchases included in the commodity flow figures is relatively small. Further progress of the government segment of the final products study is needed to improve the adjustments.

Line 11—Estimates supplied by Mr. Hal Lary of the International Economics Unit, Bureau of Foreign and Domestic Commerce.

Line 12-Same source as line II.

Line 13—Includes all business inventories in current prices as well as farm inventories. Accounting figures for inventories were taken from Statistics of Income and raised to cover noncorporate enterprises. These figures were defiated by price indexes representing the lower of cost or market and the deflated series were multiplied by current price indexes to obtain the final result. Farm inventories are from the Bureau of Agricultural Economies and represent changes in physical quantities at current prices.

Line 14—The series represents the net change in monetary stocks of gold and silver in current prices. Seigniorage on silver coin has been eliminated. The series is based on data published in the Annual Reports of the Director of the Mint.

Line 15-Line 7 minus line 8.

Line 16—From the article on "Gross Flow of Commodities and New Construction" in the April 1942 SURVEY OF CURRENT BUSINESS after deduction of government purchases.

Line 17—Line 15 minus line 16.

#### TABLE 3

Line 1-From line 1, table 1.

Lines 2, 3, and 4—These three lines contain the adjustments normally made in passing from national income to income payments. Employment taxes include both employer and employee contributions to Social Security.

Line 5-Sum of lines 6 and 7.

Line 6—Includes all taxes paid by individuals explicitly from income such as income, estate, inheritance and gift taxes. Based on Daily Treasury Statement data, the series is on a collections rather than accrual basis.

Line 7—Includes poll, license, income, and an estimated portion of property taxes. Based largely on census data plus numerous studies of private agencies and individuals.

Line 8-Line 1 plus line 2 minus lines 3, 4, and 5.

Line 9—From line 15, table 2.

Line 10—Line 8 minus line 9. Includes savings held in cash balances or invested in insurance, new residences or securities. Reductions in consumer indebtedness are counted as positive savings.